

STATE OF COLORADO

Bill Owens, Governor
Jane E. Norton, Executive Director

Dedicated to protecting and improving the health and environment of the people of Colorado

HAZARDOUS MATERIALS AND WASTE MANAGEMENT DIVISION
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**Colorado Department
of Public Health
and Environment**

February 8, 1999

Joe Legare
RFCA Coordinator
Department of Energy-RFFO
P.O. Box 928
Golden CO 80402-0928

RE: Draft Solar Ponds Decision Document - January 5, 1999 (RF/RMRS-98-286.UN)

Dear Mr. Legare:

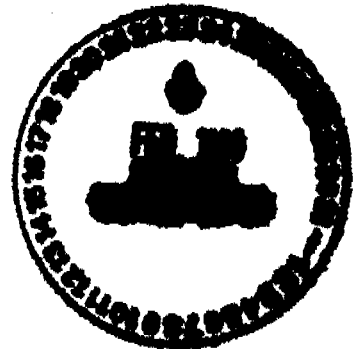
The Colorado Department of Public Health and Environment and the Environmental Protection Agency have reviewed the above referenced decision document and provide the attached comments. Pending resolution of these comments, the document can be released for public comment.

If you have any questions concerning these comments, please contact me at 303-692-3358 or Gary Kleeman at 303-312-6246.

Sincerely,

Carl Spreng
Federal Facilities Program

cc: Norma Castañeda, DOE
Lane Butler, K-H
Annette Primrose, RMRS
Tim Rehder, EPA
Gary Kleeman, EPA
Dan Miller, AGO
Steve Tarlton, RFOU
Steve Gunderson, CDPHE



ADMIN RECORD

1101-B-00017 1101-A-00050-422

**Colorado Department of Public Health and Environment
Hazardous Materials and Waste Management Division**

comments on

**Draft Solar Ponds Plume Decision Document
January 5, 1999**

1. Sections 2.2 & 2.4.2 (pages 15 & 22); Tables 2-1, 2-2, 2-3 & 2-5 (pages 12,13, 14 & 25)
These text and tables mention several metals in the plume which exceed surface water and groundwater action levels, plus some metals and organic chemicals which exceed soil action levels. The document does not explain if and how the proposed technology will remediate these chemicals in the groundwater to below the standards and action levels.
2. Table 2-3 (page 14)
Programmatic Preliminary Remediation Goals (PPRGs) have recently been revised as part of an annual review process. It is currently proposed that those ground water action levels which are based on PPRGs reflect those revisions. The proposed Tier II ground water action levels for aluminum, manganese, and nickel are 36,500 µg/L, 1720 µg/L, and 140 µg/L respectively. Maximum manganese concentrations, therefore, do not exceed the new Tier II action level.
3. Section 2.4.5 (page 26)
The literature values used and the assumptions made to fill in the unavailable site-specific data should be stated so that they can be evaluated. The Eh and DO data listed as unavailable should be relatively easy and inexpensive to collect. These data are pertinent to the fate of both nitrate and uranium.

Nitrate concentration and uranium activity in North Walnut Creek are critical parameters which are necessary to assess impacts of the various alternatives on surface water and to bracket the stream reach intersected by the plume. Data presented in this decision document does not sufficiently support the premise that the proposed technology will meet surface water standards. CDPHE is currently developing a loading analysis to determine what levels the treatment system must achieve in order to meet surface water standards. In order to complete these analyses, instream concentrations from sampling stations upgradient and downgradient of the plume's influence (particularly GS13 and SW118) are needed. If there are no nitrate or uranium data available from these stations, monitoring for these constituents should be initiated as soon as possible.
4. Section 3.1.2 (page 32)
This text should explain that 100 mg/L is a temporary modification of the surface water standard, granted till 2009. For the Long-Term Site Condition, the Site must meet the 10 mg/L standard, both on-site and off-site, and remedial actions must have Long-Term Site Condition standards as a goal.

5. Section 3.1.5 (Page 33); Sections 7.3.1 and 7.3.2 (Page 52)
The text in these sections can be updated to state that the US Fish & Wildlife Service has been consulted and has concurred with the assumption that implementation of the proposed alternative would not adversely affect the Prebles meadow jumping mouse. Their letter could be referenced in Section 9.0.
6. Section 3.1.5 (page 34)
The last sentence of the first paragraph in this section is incomplete.
7. Pages 35-39 are missing from the copies supplied to CDPHE. According to the Table of Contents, these pages discuss remedial alternatives (which are also discussed in Appendix A and were explained to CDPHE in meetings with the Site).
8. Section 5.0 (page 41)
This section could explain the similarities between this project and the Mound Site Plume remedial project, and that this project will take advantage of the lessons learned at the previous project (e.g., techniques to prevent piping from separating during backfilling).

This section proposes an action to remediate the major portion of this plume affecting North Walnut Creek, but does not address the portions of both the nitrate and uranium plumes which flow towards the South Walnut Creek drainage. Reasons for not considering the southeast lobe of the plume should be covered in this document.
9. Section 5.2 (page 42)
There is no indication of how water from the breached ITS collected in Pond A-1 will be monitored and managed. A decision document which is concerned with this water should include this information. This section also does not explain why the water diverted to Pond A-1 could not be routed to the MSTs for continued treatment during installation of the barrier.
10. Section 5.4 (page 45)
Performance monitoring wells in the alluvium of North Walnut Creek need to be designated to measure changes occurring there as a result of the remedy.

This section also should describe the transfer of project monitoring authority to the Integrated Monitoring Plan.
11. Section 7.2.8 (page 51)
The "boilerplate" text in this section lacks some detail that is necessary to adequately assess the project's ability to monitor and control fugitive emissions. "Bounding assumptions", "conservative assumptions concerning soil-contaminant concentrations and project parameters", and "estimated potential emissions" are mentioned, but are not documented. The text refers to "project documentation" and "project operations" as the source of more detailed information. This section should at least commit to provide these sources to the regulatory agencies for review so that the agencies and the public can have

some assurance that the estimates and assumptions referred are reasonable and protective. As a minimum, this text should also refer to the existing ambient air monitoring system and protocols. Depending on the type of project and its location, enhanced monitoring may be necessary (e.g., the T1 excavation project provided additional samplers and increased ambient air sampling frequency).

12. Appendix A

Stakeholders should be provided with information to weigh the cost benefits of the project in context of long-term stewardship of the Site. This information cannot be provided without an estimate of how long this plume will continue to discharge to the North Walnut Creek drainage and without establishing performance requirements for the system. If the lifetime of the plume is modeled to exceed the period of active remediation at the Site, then this document should address the issue of continued funding for the maintenance and operation of the remedial system.